

CLAIMS

WHAT IS CLAIMED IS:

1. A cell culture matrix composition, comprising:
a tissue powder derived from a whole organ, a whole tissue, a portion of a whole organ or a portion of a whole tissue.
2. The composition of claim 1, wherein
the organ is a liver, a lung, a kidney, a pancreas, a spleen, a testis, an intestinal wall, an adrenal gland, a thyroid gland, a parathyroid gland, an ovary or a brain, and
the tissue is skin, muscle, a blood vessel wall or bone marrow.
3. The composition of claim 1, further comprising a medium.
4. A method for producing a tissue powder, comprising:
isolating a biological material selected from the group consisting of a whole organ, a whole tissue, a portion of a whole organ and a portion of a whole tissue; and
converting the biological material into the tissue powder.
5. The method of claim 4, wherein converting the biological material further includes grinding with a mortar and pestle to produce ground particles.
6. The method of claim 5, wherein converting the biological material further includes sonicating the ground particles to produce the tissue powder.
7. The method of claim 6, wherein sonicating the ground particles is performed with a sonic dismembrator.
8. The method of claim 6, wherein, prior to sonicating the ground particles, the method further includes soaking the tissue powder in a medium.
9. The method of claim 4, wherein the biological material is a liver, a lung, a kidney, a pancreas, a spleen, a testis, an intestinal wall, an adrenal gland, a thyroid gland, a parathyroid gland, an ovary, a brain, skin, muscle, a blood vessel wall or bone marrow.

10. The method of claim 4, wherein isolating a biological material further includes employing a perfusion technique.
11. The method of claim 4, wherein after isolating the biological material, the method further includes freezing the biological material.
12. The method of claim 4, wherein, after isolating the biological material, the method further includes drying the biological material in a low-pressure tank.
13. The method of claim 11, wherein, after isolating the biological material but prior to freezing the biological material, the method further includes reducing the biological material into smaller pieces.
14. A method of supporting cell growth, comprising:
 providing cells; and
 suspending the cells in a medium with a tissue powder derived from a biological material selected from the group consisting of a whole organ, a whole tissue, a portion of a whole organ and a portion of a whole tissue.
15. The method of claim 14, wherein providing cells further includes harvesting the cells from a mammal.
16. The method of claim 14, wherein the cells are of the same type as those which at least partially constitute the biological material.
17. The method of claim 14, wherein providing the cells further includes employing a perfusion technique.
18. The method of claim 14, wherein the method further includes periodically replacing the medium.
19. The method of claim 14, wherein the biological material is a liver, a lung, a kidney, a pancreas, a spleen, a testis, an intestinal wall, an adrenal gland, a thyroid gland, a parathyroid gland, an ovary, a brain, skin, muscle, a blood vessel wall or bone marrow.

20. The method of claim 14, wherein the cells are hepatocytes, lung cells, kidney cells, enterocytes, pancreatic islet cells, splenocytes, or neural cells.
21. The method of claim 14, wherein the cell growth is supported to provide cells for creating an organ to use in an organ replacement or transplantation.